Public Safety at Catchpits – Lessons from Tragedy

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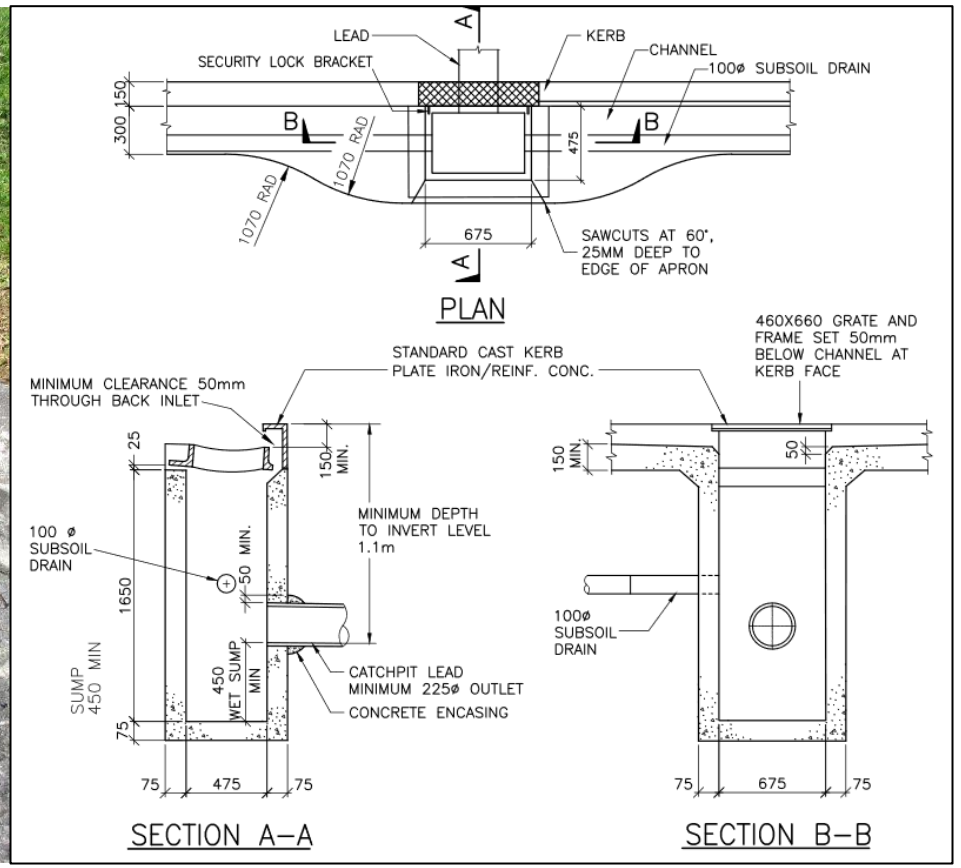
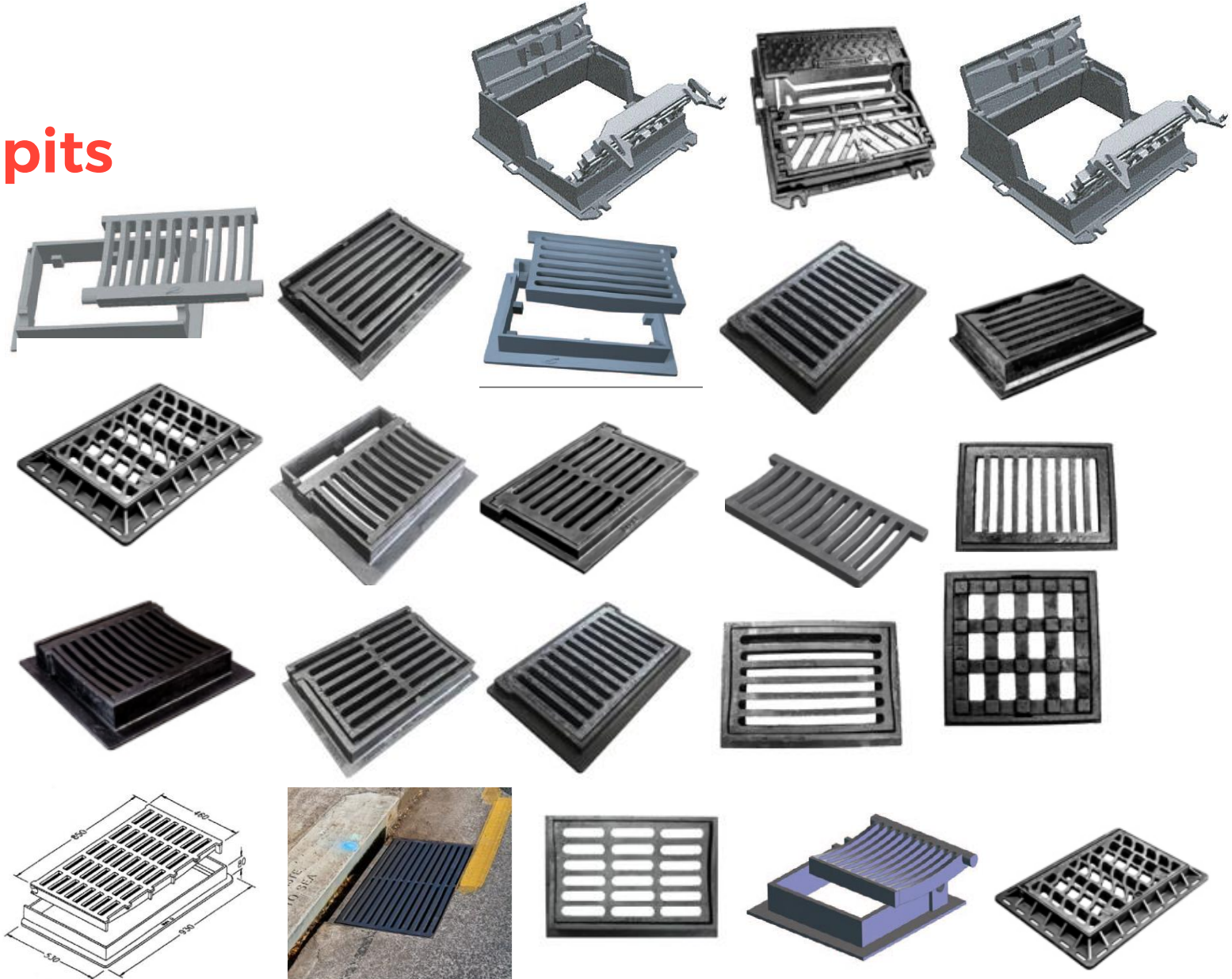
Auckland Catchpits

- 118,000 public catchpits
- 6 “standard” arrangements



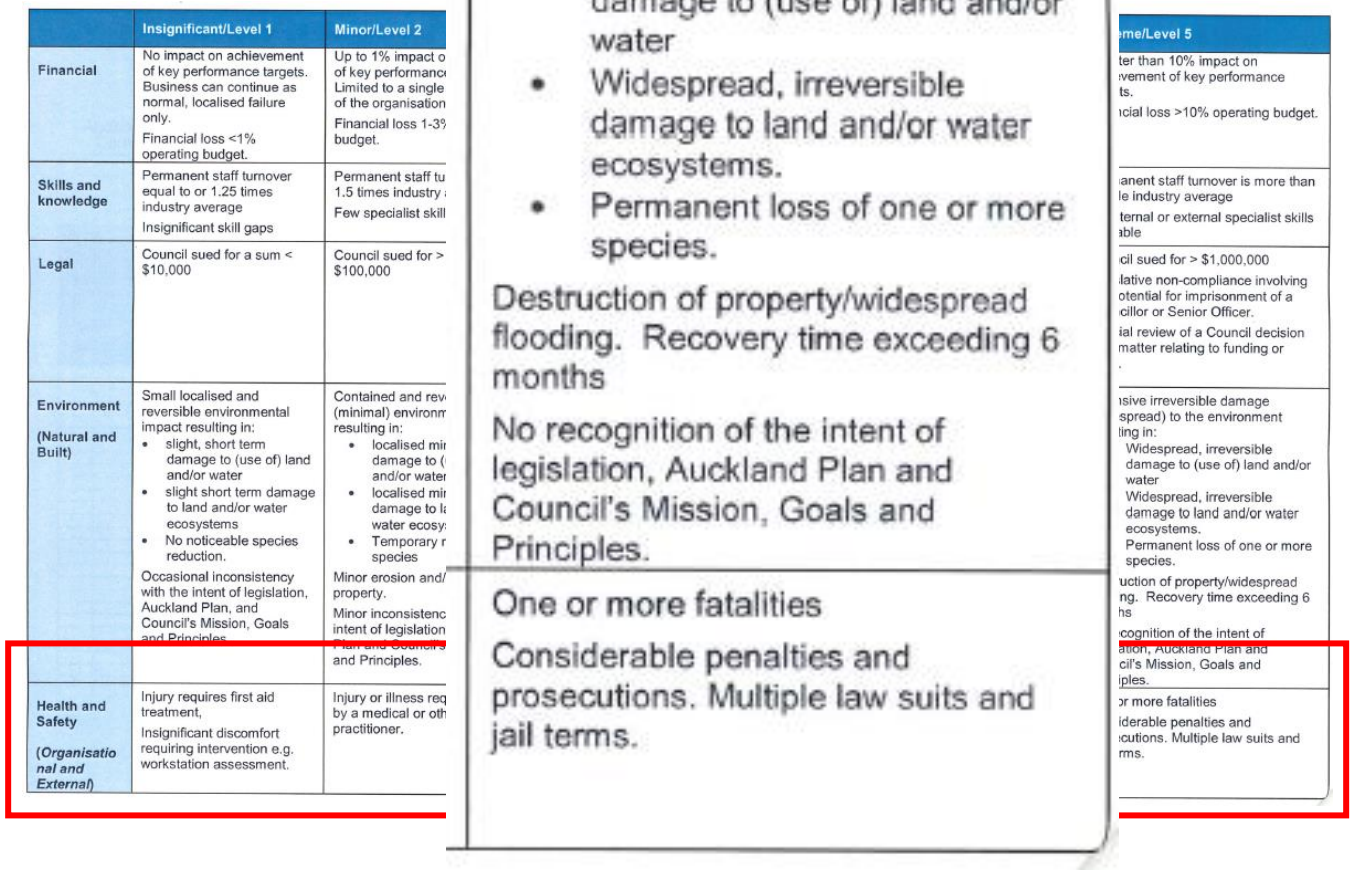
New Zealand Catchpits

- 24 ‘standard’ road catchpits
- Minor dimensional changes



Catchpit Safety Risk Assessment

Auckland Council has no … *compromise the health, safety, and wellbeing* … *taff, customers or the*



	Insignificant/Level 1	Minor/Level 2
Financial	No impact on achievement of key performance targets. Business can continue as normal, localised failure only. Financial loss <1% operating budget.	Up to 1% impact o of key performanc Limited to a single of the organisation Financial loss 1-3% budget.
Skills and knowledge	Permanent staff turnover equal to or 1.25 times industry average Insignificant skill gaps	Permanent staff tu 1.5 times industry Few specialist skill
Legal	Council sued for a sum < $10,000	Council sued for > $100,000
Environment (Natural and Built)	Small localised and reversible environmental impact resulting in: • slight, short term damage to (use of) land and/or water • slight short term damage to land and/or water ecosystems • No noticeable species reduction. Occasional inconsistency with the intent of legislation, Auckland Plan, and Council's Mission, Goals and Principles	Contained and rev (minimal) environm resulting in: • localised mi damage to (and/or wate • localised mi damage to l water ecosy • Temporary r species Minor erosion and/ property. Minor inconsistenc intent of legislation and Principles.
Health and Safety (*Organisational and External*)	Injury requires first aid treatment, Insignificant discomfort requiring intervention e.g. workstation assessment.	Injury or illness req by a medical or oth practitioner.

Extensive irreversible damage (widespread) to the environment resulting in: • Widespread, irreversible damage to (use of) land and/or water • Widespread, irreversible damage to land and/or water ecosystems. • Permanent loss of one or more species.
Destruction of property/widespread flooding. Recovery time exceeding 6 months
No recognition of the intent of legislation, Auckland Plan and Council's Mission, Goals and Principles.
One or more fatalities
Considerable penalties and prosecutions. Multiple law suits and jail terms.

ome/Level 5
ter than 10% impact on vement of key performance ts. ıcial loss >10% operating budget.
anent staff turnover is more than le industry average ternal or external specialist skills able
cil sued for > $1,000,000 lative non-compliance involving otential for imprisonment of a cillor or Senior Officer. ial review of a Council decision matter relating to funding or
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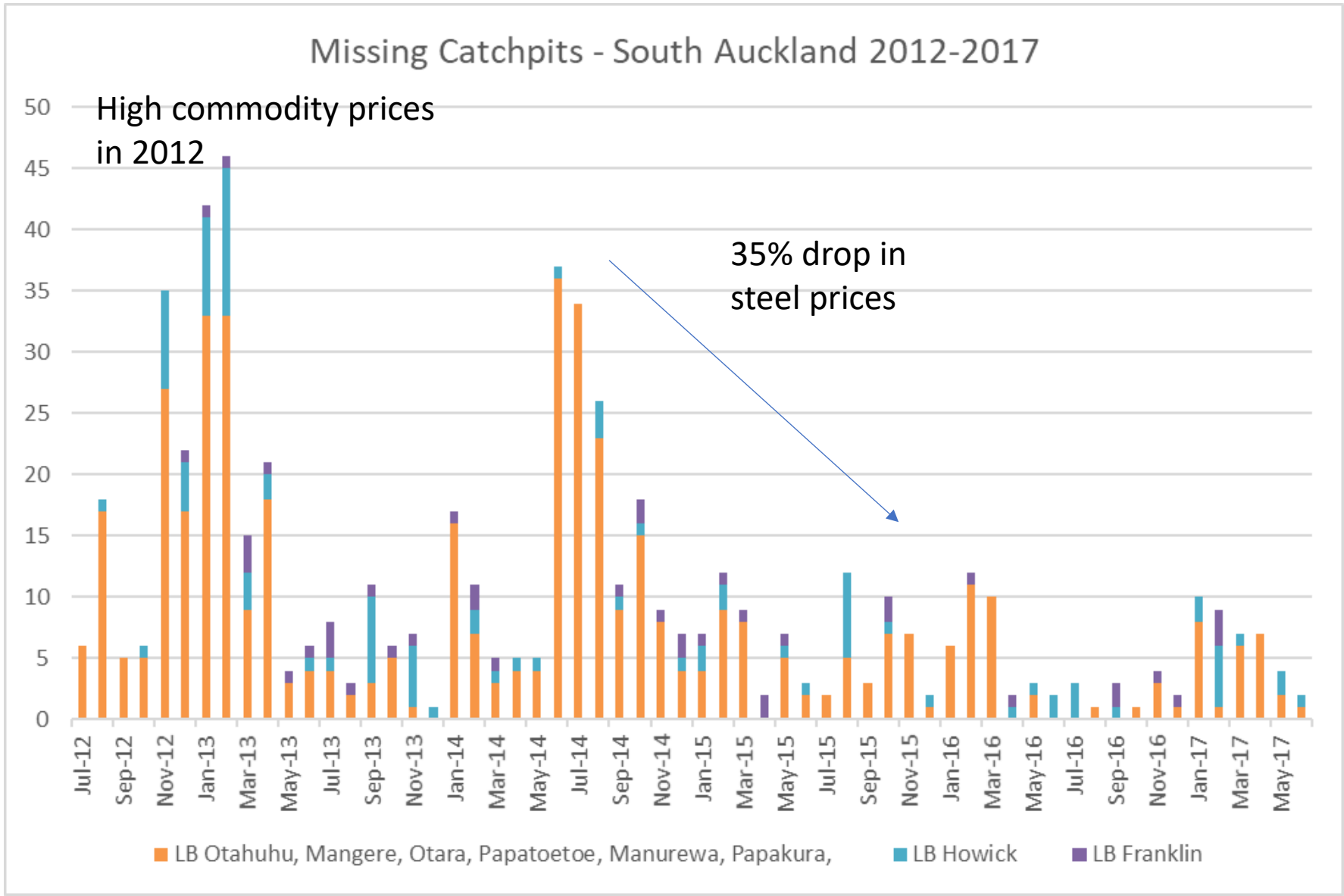
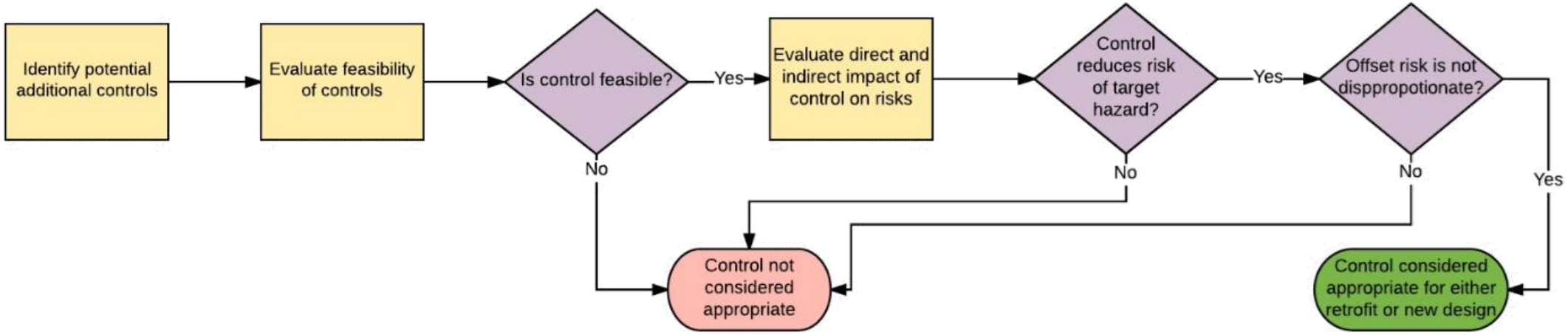
Catchpit Hazards



Additional Controls



Additional Controls

1.	DANGER warning sign	- risk of retrieving items
2.	Improved public education/communication	- all catchpit risks
3.	Remove deciduous trees	- blockage risks
4.	More effective catchpit inlets	- all catchpit risks
5.	Improve back entry design	- blockage risks
6.	Avoid catchpits in cycle lanes/areas	- missing/dislodged catchpits
7.	Continuous capture inlets	- risk of retrieving items
8.	Bolts on grates	- risk of retrieving items
9.	Openable with special tool	- risk of retrieving items
10.	Catchpit inserts	- risk of retrieving items
11.	Apply safety in design	- all catchpit risks
12.	GIS to identify hazard hotspots	- all catchpit risks
13.	Improved processes for reporting issues	- all catchpit risks

1. Education

BECOME A
WATER-SAFETY
HERO

If you see any missing or broken manhole or drain covers then call council urgently on 09 301 0101.

Check your kids play safe and stay away from drains and manholes.

Find out more: visit aucklandcouncil.govt.nz

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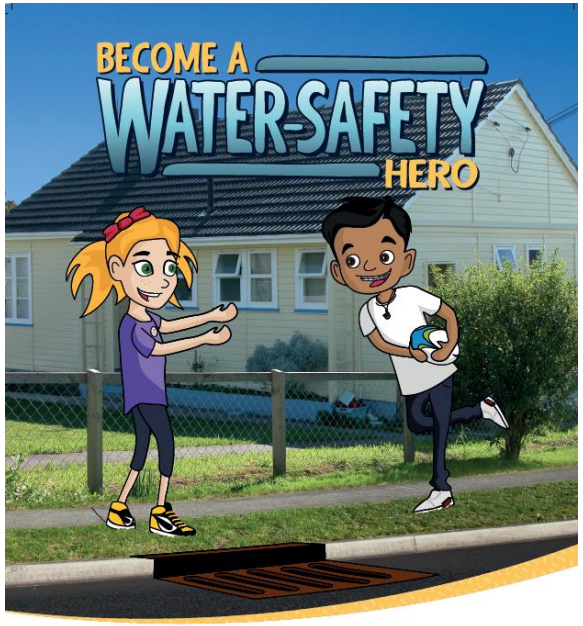
1. Education



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E ui kia kite akaou mai kotou i tetai au mea ke: taniuniu'ia atu te numero tereponi 09 301 0101 me kare ra, atoro'ia atu te roro uira atuitui aucklandcouncil.govt.nz

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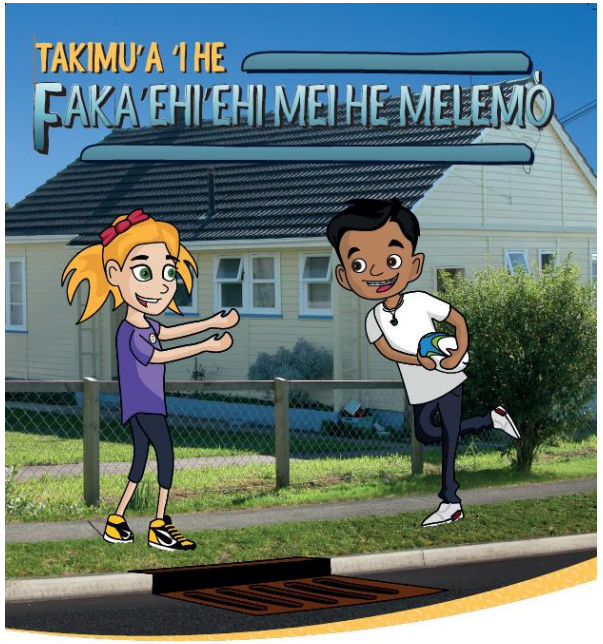

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2. GIS Analysis – Proactive Prioritisation

Catchpit Location	No. of catchpits
Within a residential property boundary	6864
Within a public open space	2689
Within a sports extent	1413
Within 10m of residential dead-end roads/cul-de-sacs with a slope of between 2% and 4%.	6278
Within 10m of residential dead-end roads/cul-de-sacs with a slope of less than 2%	3194

Catchpit Hazard Records	No. of reported occurrences
Number of missing grates (2014 – 2017)	922
Number of catchpits reported blocked (2015-2017)	2227
Number of catchpits with request for retrieving an item (2016-2017).	224

3. Lockable Catchpits

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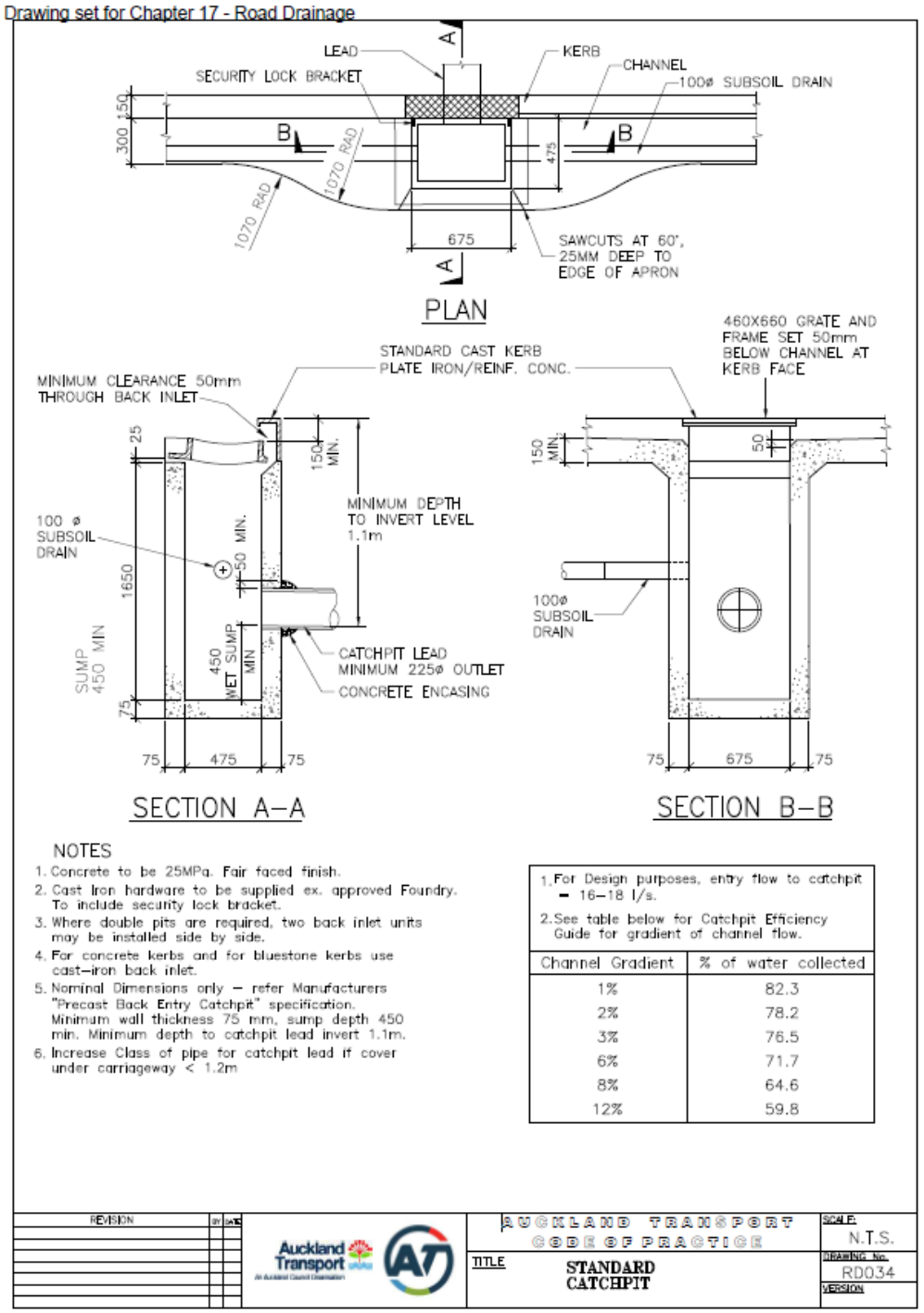
4. Upgrading Catchpits

5. Code of Practice

- Back Entry Improvements
- Street tree selection (roots and leaf fall)
- Safety in Design
- Lockable catchpit grates?



Lessons from Tragedy…

- Catchpits are generally safe
- But, have we under appreciated catchpit safety risk?
- Critical public understand hazards – prevention and reporting
- Catchpits can be made safer - Lockable catchpit grate innovation
- Do we need 24 different types of ‘standard’ catchpit in New Zealand?
- Do not wait for another tragedy, learn from Auckland’s lesson.

Thank you!

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